



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,225	07/23/2001	Christof Koch	06618/790001/CIT 3411	4325
20985	7590	12/15/2005	EXAMINER	
FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			DANG, DUY M	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/912,225

Applicant(s)

KOCH ET AL.

Examiner

Duy M. Dang

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2005 and 04 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 8-41, 48-53 and 55-59 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42-47 and 54 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/05 has been entered.

2. Applicant's amendment to cancel nonelected claims 8-41, 48-53, and 55-59 in response to this office action is advised.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao [US Patent No. 5,566,246. Art of record, IDS filed 8/20/01] in view of Kikinis [US Patent No. 5,929,849].

Regarding claim 1, Rao teaches: using a computer to analyze an image [see figure 1: computer vision system 10 is used to analyze image inputted by sensor 15], to determine which parts of an image are likely to be perceived by a human viewer as salient to the human eye without analyzing the actual content of the image [see saliency measure estimators shown in figure 1 and the saliency measures comprising long, smooth, contrasts refers to claimed salient parts according to col. 3 lines 14-20], and using the computer to determine from said parts, an effectiveness of said image in attracting the attention of human observer to aspects of the image

Art Unit: 2627

[see figure 1: note that the ranking of saliency in unit 60 is used in vision application 65 matching (col.5 lines 1-3)].

While Rao discloses using said salient parts to determine an effectiveness of said image in displaying, Rao fails to disclose using said salient parts to determine an effectiveness in attracting the attention of human observers to aspects of the image.

However, Kikinis teaches using said salient parts to determine an effectiveness in attracting the attention of human observers to aspects of the image [see col. 2 lines 32-36 (using salient features in advertiser to attract purchaser), and text portions mentioned in col. 5 lines 15-23, col. 6 line 50 to col. 7 line 67 (viewer is interested in the BMW advertisement and as the result, he/she activates the selection signal)].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features as taught by Kikinis in combination with Rao in order to enhance the effectiveness of the displaying image to viewer with less time consuming and labor tasks for viewer and cost reduction for advertiser as suggested by Kikinis in column 4 lines 55-61.

Regarding claim 2, Rao further teaches wherein said analyzing comprises analyzing pixels of said image using mean pixel values [see average change of curvature mentioned in col. 4 line 8. Note that average change of curvature refers to average length of contour which is formed by edge pixels or edgels (col. 3 lines 50-51). Thus, the average pixel values or mean pixel values are inherently included in the average curvature].

Art Unit: 2627

Regarding claim 3, Rao further teaches wherein said analyzing comprises analyzing pixels on said image using higher order statistical variations [see weight omega mentioned in col. 4 lines 48-65].

Regarding claim 4, Rao further teaches said image representation includes a single image at a single time [see image frames  $F_1...F_n$  mentioned in col. 6 line 15. Note that each image frame  $F$  represents a single image at a single time].

Regarding claim 5, Rao further teaches said image representation includes a sequence of images over time [see sequence image frames  $F_1...F_n$  mentioned in col. 6 line 15].

With regard to claim 6, Kikinis further teaches using salient features in advertising in order to attract purchaser as mentioned in column 2 lines 32-36.

Regarding claim 7, Kikinis further teaches said using comprises evaluating a display showing one or more items for sale [see col. 2 lines 25-36. Note the use of salient features to an advertised item attract buyers].

5. Claims 42-47 and 54 are allowed.

6. The following is an examiner's statement of reasons for allowance:

Reference is made to the newly features added to claim 42 and applicant's argument, see in page 17 filed 10/11/05 as a reason why the most relevant prior art previously applied do not anticipate or render obvious the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Response to Arguments*

7. Examiner's response to Applicant's argument filed 10/11/05 as follows:

In reply to Applicant's argument with regard to claim 1, it appears that applicant has argued that applicant's salient parts or parts is different than Rao's salience (see page 16 first full paragraph). However, such different is not clearly recited in the instant claim 1. Applicant is reminded that the examiner is entitled to give the broadest reasonable interpretation to the language of the claims. The examiner is not limited to applicant's definition which is not specifically set forth in the claims. In re Tanaka et al., 193 USPQ, (CCPA) 1977. In this case, the Rao's salience can be considered as applicant's salient parts or parts. Therefore, the combination of the applied references renders claim obvious for the same as set forth in claim rejection above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M. Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 6:00AM to 2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dmd  
12/05

A handwritten signature in black ink, appearing to read 'Duy M. Dang', with a stylized, cursive script.

Duy M. Dang  
Patent Examiner